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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No.	:	09/992,454	Art Unit	:	3764
Applicant	:	Sven J. Sjostam	Examiner	:	Mathew, Fenn C.
Filed	:	November 6, 2001	Conf. No.	:	7525
Title	:	Play And Training Equipment	Docket No.	:	MISI 8116US

St. Louis, Missouri  
**Date:** June 12, 2006

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION 37 CFR 192)**

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on March 10, 2006. Included with the appeal brief is a copy of the case *In re Chu*, 66 F.3d 292, 298; 36 U.S.P.Q.2d 1089 (Fed. Cir. 1995)

**2. STATUS OF APPLICANT**

This application is on behalf of:

- ☒ other than a small entity  
☐ small entity

Small entity status:

- ☐ is claimed.  
☒ is NOT claimed.

**3. FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

- ☐ small entity \$250.00  
☒ other than small entity \$500.00

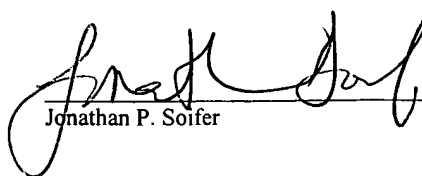
**Appeal Brief fee due \$500.00**

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120.00 0P

I hereby certify that this correspondence is being delivered to the Commissioner Of Patents via "Express Mail" on June 12, 2006.

  
Jonathan P. Soifer

**4. EXTENSION OF TERM**

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

*(complete (a) or (b) as applicable)*

(a) ☒ Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a) for the total number of months checked below. The Appeal Brief was due on May 10, 2006, and a one month extension of time is hereby requested to extend the time for filing the Appeal Brief to June 12, 2006 (June 10, 2006 falling on a Saturday).

	Small Entity	Other than Small Entity
First Month	<input type="checkbox"/> \$60.00	<input checked="" type="checkbox"/> \$120.00
Second Month	<input type="checkbox"/> \$225.00	<input type="checkbox"/> \$450.00
Third Month	<input type="checkbox"/> \$510.00	<input type="checkbox"/> \$1,020.00
Fourth Month	<input type="checkbox"/> \$795.00	<input type="checkbox"/> \$1,590.00
Fifth Month	<input type="checkbox"/> \$1,080.00	<input type="checkbox"/> \$2,160.00

**Fee \$120.00**

If additional extension of time is required, please consider this a petition therefor.

*(check and complete the next item, if applicable)*

(a) ☐ An extension for \_\_\_\_\_ months has already been secured and the fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$120.00

**or**

(b) ☐ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

**5. TOTAL FEE DUE**

The total fee due is:

Appeal brief fee \$500.00  
Extension fee (if any) \$120.00

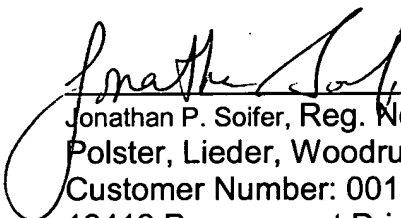
**TOTAL FEE DUE \$620.00**

**6. FEE PAYMENT**

☒ Attached is a check in the sum of \$620.00

**7. FEE DEFICIENCY**

The Commissioner is hereby authorized to charge any additional fees or credit overpayment under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account 162201. *Duplicate copies of this sheet are enclosed.*



Jonathan P. Soifer, Reg. No.: 34,932

Polster, Lieder, Woodruff & Lucchesi, L.C.

Customer Number: 001688

12412 Powerscourt Drive

St. Louis, Missouri 63131-3615

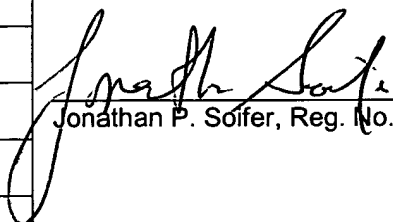
Telephone: (314) 238-2400

Facsimile: (314) 238-2401



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

<b>APPLICANT:</b>	Sven A. Sjostam	I hereby certify that this correspondence is being delivered to the Commissioner for Patents via Express Mail on June 12, 2006.   Jonathan P. Soifer, Reg. No. 34,932
<b>SERIAL NO.:</b>	09/992,454	
<b>FILED:</b>	November 6, 2001	
<b>EXAMINER:</b>	Mathew, Fenn C.	
<b>DOCKET NO.:</b>	MISI 8116US	
<b>ART UNIT:</b>	3764	
<b>FOR:</b>	Play And Training Equipment	

## MAIL STOP APPEAL BRIEF - PATENTS

Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**APPELLANT'S BRIEF (37 CFR 41.37)**

This brief is in furtherance of the Notice of Appeal filed in this case on March 10, 2006.

The fees required under § 41.20(b)(2) and any required petition for extension of time for filing this brief and fees therefor are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains these items under the following headings and in the order set forth below (37 CFR 41.37):

- I. REAL PARTY IN INTEREST.
- II. RELATED APPEALS AND INTERFERENCES.
- III. STATUS OF CLAIMS
- IV. STATUS OF AMENDMENTS.
- V. SUMMARY OF CLAIMED SUBJECT MATTER.
- VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL.
- VII. ARGUMENT.
- VIII. CLAIMS APPENDIX.
- IX. EVIDENCE APPENDIX.
- X. RELATED PROCEEDINGS APPENDIX.

**I. REAL PARTY IN INTEREST (37 CFR 41.37(c)(1)(i))**

This application is assigned to AB Hags Mekaniska, a Swedish company, which is a subsidiary of PlayPower, Inc., a Delaware Company having headquarters in Charlotte, North Carolina. PlayPower, Inc., in turn, is wholly owned by PlayPower Holdings, Inc., a Delaware Corporation.

**II. RELATED APPEALS AND INTERFERENCES (37 CFR 41.37(c)(1)(ii))**

None

**III. STATUS OF CLAIMS (37 CFR 41.37(c)(1)(iii))**

**A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application are: 2-8 and 12-21

**B. STATUS OF ALL THE CLAIMS**

(If there are no claims in a category indicated: NONE)

1. Claims cancelled: 1, 9-11
2. Claims withdrawn from consideration but not cancelled: None
3. Claims pending: 2-8 and 12-21
4. Claims allowed: None
5. Claims rejected: 2-8 and 12-21

**C. CLAIMS ON APPEAL**

The claims on appeal are: 2-8 and 12-21

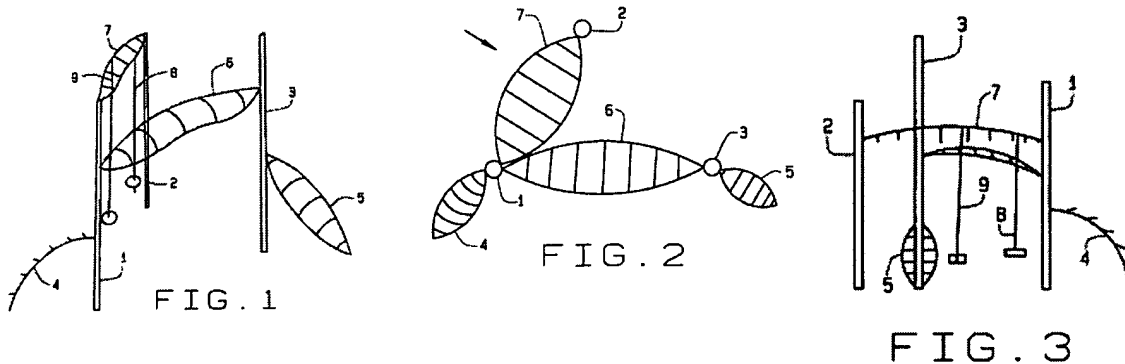
**IV. STATUS OF AMENDMENTS (37 CFR 41.37(c)(1)(iv))**

The Amendment filed September 22, 2005 has been entered.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER (37CFR 41.37(c)(1)(v))**

Briefly, the invention is directed to a playground assembly comprising at least one play unit (4, 5, 6, 7) adapted to be climbed upon, at least one ground engaging post (1, 2, 3) to which the at least one play unit is mounted, and a connector (unnumbered) for mounting the at least one play unit to the post. The playground assembly is shown

schematically in FIGS. 1, 2 and 3 of the application, which are reproduced below. FIG. 1 is a top perspective schematic view; FIG. 2 is a top plan schematic view; and FIG. 3 is a side elevational schematic view.



In one embodiment, the play unit comprises a frame (10, 12, 14) having an elliptic shape (as seen in FIG. 2). Members (11, 13, 15) in the frame extend parallel to the short axis of the ellipse. In this embodiment, the frame can form a bow. Additionally, the members (15) can be bowed or curved towards either side of the frame.

The at least one play unit includes a mounting shaft (26, FIG. 9) at at least one end of the play unit.

The connector which connects the at least one play unit (4, 5, 6, 7) to the at least one post (1, 2, 3) is shown in FIG. 9, which is reproduced below. The connector

comprises a rubber bushing (20-23) which surrounds the play unit mounting shaft (26) and enables the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit. As seen in FIG. 9, the connector includes an

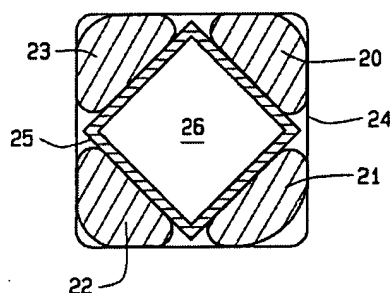


FIG. 9

outer shell (24) and the bushing (20-23) is contained within the shell. The connector further can include an inner tube (25) which is received within the bushing and which receives the mounting shaft (26) of the play unit. Additionally, the bushing can comprise discrete bushing elements (20, 21, 22, 23) spaced about the interior of the shell.

In accordance with one aspect of the invention, the connector is mounted within the post of the playground assembly. In accordance with another aspect, the connector is mounted to an outer surface of the post of the playground assembly.

In accordance with a further aspect, the invention is directed to play/exercise equipment for use on a playground or in an exercise facility. The play/exercise equipment comprises at least one play unit (4-7) adapted to be climbed upon. The play unit comprises a pair of opposed side members (10, 12, 14), a plurality of cross-members (11, 13, 15) extending between the side members, and a mounting shaft (26) extending from at least one end of the play unit. The equipment further comprises at least one ground engaging post (1, 2, 3) to which the at least one play unit is mounted and a connector (unnumbered) for mounting the at least one play unit to the post. The connector comprises a rubber bushing (20-23) which surrounds the play unit mounting shaft (26) and enables the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit. The play unit can, for example, be a bridge (7) or ladder (4), as illustratively shown in FIG. 1. The side members (10, 12, 14) of the frame can be curved, as illustratively shown in FIG. 2. Further, the frame cross-members (15) can be curved in a plane offset from a plane of the frame side members, as illustratively shown in FIG. 8.

The connector includes an outer shell (24) inside of which the bushing (20-23) is contained. The connector includes an inner tube (25) which is received within the bushing (20-23). The inner tube receives the mounting shaft (26) of the play unit. The bushing can comprise discrete bushing elements (20, 21, 22, 23) spaced about the shell, as illustratively shown in FIG. 9.

#### **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL (37CFR 41.37(c)(1)(vi))**

Claims 2-8 and 12-21 have all been rejected under 35 U.S.C. §103(a) as being unpatentable over Katz (US Pat. No. 6,095,950) in view of Gleeson et al. (US Pat. No. 5,167,595). These references are referred to, hereinafter as "Katz" and "Gleeson", respectively, or "the Katz patent" and "the Gleeson patent", respectively.

#### **VII. ARGUMENT (37CFR 41.37(c)(1)(vii))**

##### **A. Discussion of the references**

As seen in FIG. 3 of Katz, reproduced below, Katz is directed to playground equipment comprised of three posts (1) set in a triangular arrangement.

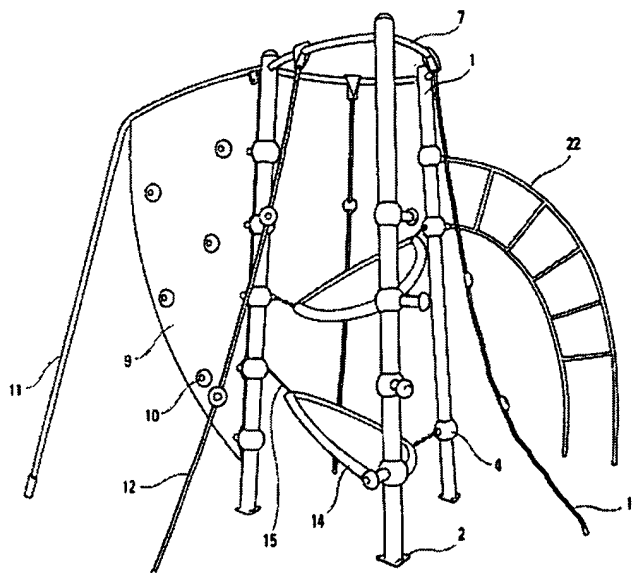


Fig. 3



Generally triangularly shaped plates 14 are suspended between three posts by slings 15 extending between the apexes or corners of the plates and the posts. The slings 15 are disclosed to be chains or plastic straps. (Katz, Col. 2, Lines 61-62). An assembly element or bracket is mounted to the posts, and the slings 15 are connected to these brackets. The brackets comprise rings which are shown in FIGS. 7 and 8 of Katz, and which are reproduced below:

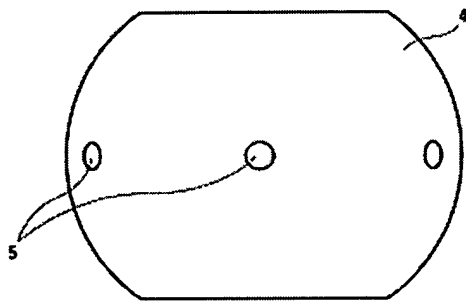


Fig. 7

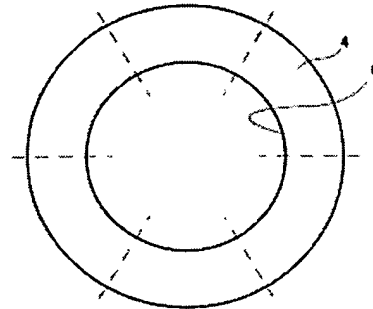
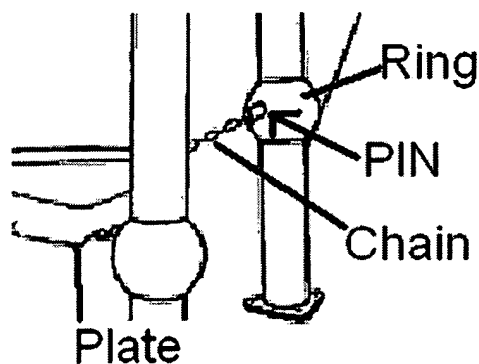


Fig. 8

The rings are generally annular and define a hole 6 (FIG. 8) corresponding to the diameter of the post 1. Threaded holes 5 extend through the ring so that the bracket can be fastened to the post by means of bolts. (Katz, Col. 2, line 66- Col. 3, line 8). As seen in FIG. 3, pins extend outwardly from the rings 4, and the slings are connected to

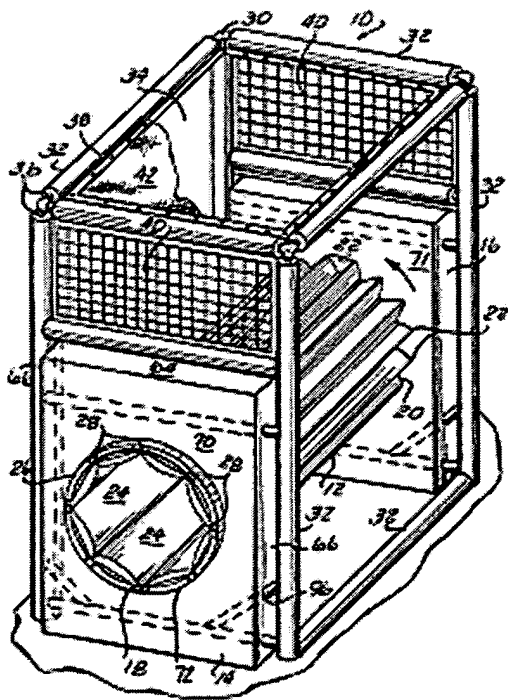


these pins. An enlarged portion of FIG. 1 is shown at left to show the pin. These pins are threadably received in the holes 5<sup>1</sup>. Hence, the plates 14 are suspended between the posts 1 by the slings 15 which are connected at one end to a corner of the

<sup>1</sup>The Katz patent is somewhat vague regarding the full structure of the ring and the manner that elements are connected to the ring. While Katz does not explicitly state that the pins are threaded into the ring holes 5, Katz does provide that the holes 5 are threaded. Hence, without any other description by Katz, it can be logically inferred that the pins are threaded into the holes 5.

plate 14 and at another end to the pins mounted in the rings 4. To the extent that the plates 14 can move relative to the posts, this movement is due to the flexibility of the slings, rather than the construction of the brackets or rings which mount the slings to the posts.

Gleeson discloses a play apparatus (10) having a rotatable inner member (12), as seen generally in FIG. 1 which is reproduced at left. The rotatable member (12) is



rotatably mounted to supports 14 and 16 at the longitudinal ends 18 and 20 of the rotatable member 12. (Gleeson, Col. 2, lines 18-20). The supports 14 and 16 are thin rectangular boxes defining a large center aperture 72 which receives one of the longitudinal ends 18 and 20 of the rotatable member 12. A bearing 74 is disposed in each support member 14 and 16 for peripherally engaging one of the longitudinal ends 18 and 20 to allow rotation of rotatable

member 12 about its own longitudinal axis. (Gleeson, Col. 4, lines 5-21). FIGS. 4 and 6 of Gleeson are reproduced below to show the mounting of the rotatable member in the frame and the construction of the caster/roller assembly which rotatable supports the rotatable member.

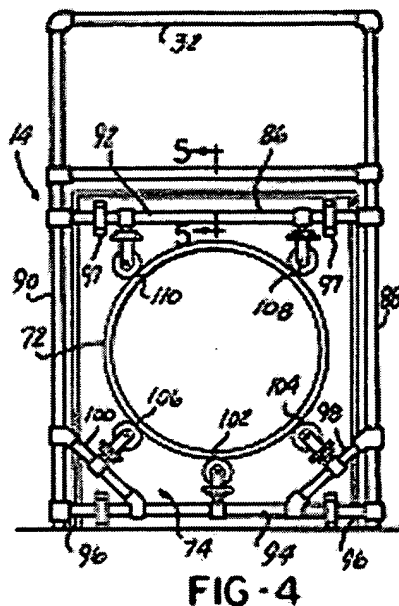


FIG - 4

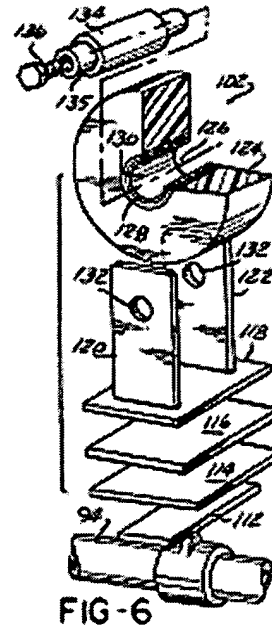


FIG - 6

As seen in FIG. 4 of Gleeson, bearing 74 comprises a caster (102, 104, 106, 108, 110). The five casters are all identical, and are shown in detail in FIG. 6. Gleeson describes the casters at Col. 5, lines 17-47 as follows:

"Roller mount 118 includes two flanges 120 and 122 in spaced parallel relation for receiving a roller 124 therebetween. Roller 124 has a central bore 126 into which a bushing 128 is securely inserted such as with a force fit. In the case of roller clutch caster 102, bushing 128 is equipped with a roller clutch 130 for permitting roller 124 to rotate in only one direction. In the cases of the other casters 104, 106, 108 and 110, bushing 128 is simply equipped with a suitable roller bearing (not shown). Suitable roller bearings and clutches are commercially available, such as the Model RCB-121616 from the Torrington Company of Torrington, CT"

"Flanges 120 and 122 each include an aperture 132 for receiving one of the longitudinal ends of an axle 134 which is inserted through bushing 130 (and central bore 128). The longitudinal journal ends 135 of axle 134 are threaded to receive securing bolts 136, which secure axle 134 to roller mount 118."

"It will be noted that the orientation of each one of casters 102, 104, 106, 108 and 110 is such that each caster's respective roller has an axis of rotation that is parallel to the axis of rotation of rotatable member 12. Moreover, by adjusting the positions of casters 102-110 along their respective internal crossbars 92, 94, 98 and 100, it is possible to adjust the compression force exerted by the casters on the perimeter of rotatable

member 12. By reducing or increasing this force, rotation of rotatable member 12 can be made harder or easier. Preferably, rotatable member 12 should not rotate too easily, as excessive rotational speed may cause injury to children.” (emphasis added)

As can be discerned from this description, and as is shown in Gleeson, FIG. 6, the bushing 128 is force fit in the roller 124. The axle 134 passes through the bushing and is securely fixed to the flanges 120, 124 of the mount 118. The bushing and roller rotate about the axle 124. Gleeson does not disclose the type of fit between the bushing 128 and the axle 134. However, from the disclosure, it can be logically inferred that the fit is one which would not allow the roller to wobble on the axle. Such wobble would affect the ability of the rotatable member 12 to rotate smoothly. Further, such wobble would interfere with the ability to control the compression force exerted by the casters on the rotatable member, as is disclosed in the last quoted paragraph above.

## **B. Requirements For A *Prima Facie* Case Of Obviousness**

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.” MPEP § 2143 (emphasis added) “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination”. Further, “a statement that modifications of the prior art to meet the

claimed invention would have been 'well within the ordinary skill of the art' at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." MPEP §2143.01 (emphasis in original).

"Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." MPEP §2143.01 (Citations omitted)

As indicated by the excerpts from the MPEP cited above, establishing a *prima facie* case of obviousness requires that "the prior art references when combined must teach or suggest all of the claim limitations" and that there be a suggestion to modify the references as suggested by the Examiner (Emphasis added.) As discussed below, neither the Katz patent nor the Gleeson patent, whether considered individually or in combination, discloses all the limitations of the claims; neither the Katz patent nor the Gleeson patent provides a suggestion or incentive to make the modification proposed by Examiner Brown<sup>2</sup>; and the modification suggested by Examiner Brown either renders

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<sup>2</sup> Although Examiner Mathew remained as the assistant examiner on this application throughout the examination of the application; five different supervisory patent examiners and primary patent examiners have been assigned to the case. Thus, when the actions of the Examiners are discussed, the Examiners' names are used to avoid confusion as to the Examiners' various actions.

the Katz device inoperable for its intended purpose or relies upon a reading of Gleeson which would render the Gleeson device inoperable for its intended purpose. Hence, Claims 2-8 and 12-21 are all allowable over Katz and Gleeson.

**C. Claims 2-8 and 12-21 Are Patentable Over The Katz And Gleeson Patents**

**1. Claim 2 is patentable over Katz in view of Gleeson**

Claim 2 provides:

2. A playground assembly comprising at least one play unit adapted to be climbed upon, at least one ground engaging post to which the at least one play unit is mounted, and a connector for mounting the at least one play unit to the post; the at least one play unit including a mounting shaft at at least one end of the play unit; the connector comprising a rubber bushing which surrounds the play unit mounting shaft; the connector enabling the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit.

In Office Action No. 4 (Office Action dated May 20, 2004) Examiner Lucchesi indicated that Claims 2-5, 7, 10 and 12 (as set forth in Amendment B) were only objected to. Although the current Claim 2 is slightly different from the Claim to that Examiner Lucchesi only objected to, Examiner Lucchesi did state that the prior art does not teach that the connector comprises "an inner tube received within the bushing, with the inner tube receiving the mounting shaft." (See Office Action Dated May 20, 2004). This requirement remains in Claim 2. When Examiner Lucchesi made this statement, the Katz and Gleeson patents were of record in the application, and the rejections based on Katz and Gleeson had been withdrawn.

Further, in the Notice of Allowability, Examiner Donnelly stated that "Katz fails to teach the mounting shaft, and connector comprising the rubber bushing as substantially claimed." Examiner Donnelly also stated that "The prior art of record fails to teach ... a

mounting shaft attached to the end of the [play unit], a post having a connector comprising rubber bushing wherein the mounting shaft of the play unit is received by the connector thereby allowing dampened swinging movement of the play unit as a whole."

At the time Examiner Donnelly allowed the application, the Katz and Gleeson patents were of record in the application and the rejections based on the Katz and Gleeson patents had been withdrawn.

In his rejection of Claim 2, Examiner Brown asserts that in the Katz patent, the pin that is mounted in the ring 4 and to which the chain 15 is connected corresponds to

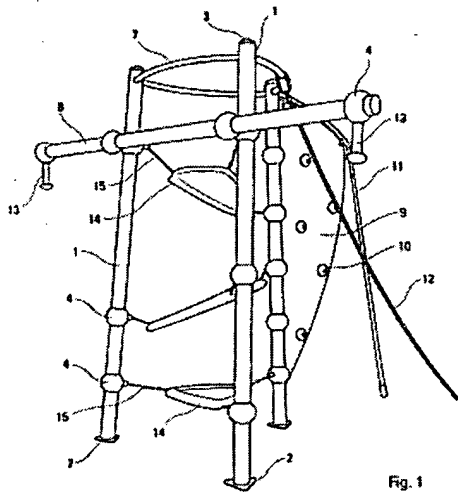


Fig. 1

the mounting shaft. (See Office Action No. 8, ¶12).

Applicant respectfully disagrees with Examiner Brown's assertion. In Katz, the plate 14 would correspond to the play unit. As seen in FIG. 1 of Katz (reproduce at the left) and the enlarged portion of FIG. 1 reproduced above at page 6, the pin is not at "at least one end of the play unit". Rather, the pin is threaded into the ring

hole 5 and a sling (chain) 15 extends between a corner of the plate 14 and the pin. The only item at "an end" of the plate 14 in Katz is the sling 15, and the sling 15 does not correspond to a "shaft." Because the pin is not part of the play unit 14, the Katz patent does not teach or suggest that the play unit includes "a mounting shaft at at least one end of the play unit" as is required by Claim 2 (and as recognized by Examiner Donnelly).

Further, Katz does not teach or suggest that there is a "shaft" which is received in a bushing. This is supported by the statements of Examiner's Lucchesi and Donnelly,

set forth above. Examiner Brown has asserted that the pin extending from the ring 4 corresponds to the shaft of Claim 2. Even if this were accepted, this pin is not received in a bushing. Rather, the pin is received in a threaded opening 5 in the ring 4.

Additionally, Katz does not even disclose the use of a bushing.

Finally, Katz does not teach or suggest that the connector (which corresponds to the ring 4) enables “the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit.” Rather, to the degree that the plate 14 of Katz can move, any such movement is due to the flexibility of the chain 15 and not the connecting of the pin to the ring 4.

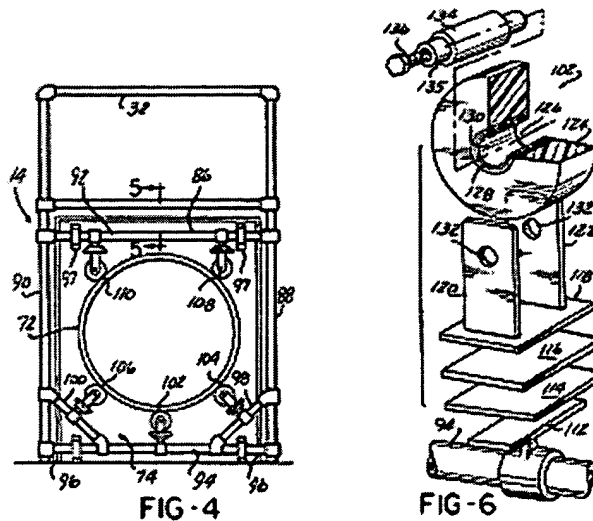
Thus, as set forth above, Katz is missing several elements that are set forth in Claim 2.

Examiner Brown asserts that “[in] view of the teachings of Gleeson, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide bushings in the connector to better secure the mounting shaft. The use of rubber bushings to cushion and secure connections is old and well known in the art (rubber washers/bushings).”

A bushing is defined as “a usually removable cylindrical lining for an opening (as of a mechanical part) used to limit the size of the opening, resist abrasion, or serve as a guide” (Merriam Webster On-Line Dictionary). This appears to be the purpose for which Gleeson uses the bushing in the Gleeson play structure. The bushing 128 serves to limit the size of the roller opening which receives the axle and as a guide to facilitate rotation of the roller about the axle. The bushing 128, depending on the material from which it is made, may also facilitate rotation of the roller about the axle. Although not



explicitly set forth in Gleeson, this can be seen, for example in FIGS. 4 and 6 of Gleeson, reproduced below.



However, the bushing of Claim 2 of the present application is not used to limit the size of an opening or as a guide; and contrary to Examiner Brown's statement, the bushing of Claim 2 does not provide for a more secure mounting of the shaft in the connector. Rather, as set forth in the last phrase of Claim 2, the connector, of which the bushing is a part, enables "the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit." Claim 2 notes that the bushing surrounds the shaft. Hence, the bushing is used to provide for the "limited and dampened swinging movement". This is disclosed in the application. (See for example, page 4, lines 12-24, where the application provides "[this] way of mounting the units gives the suppressed, dampened and limited to and fro rocking motion that is desired.")

Gleeson uses the bushing for the usual purpose which is noted by Examiner Brown and set forth in the Merriam-Webster Dictionary definition. Hence, the Gleeson

bushing does not allow for “limited and dampened swinging movement”. In fact, if the Gleeson bushing did allow for such motion, the Gleeson play apparatus would be inoperable for its intended purpose. If there were limited and dampened swinging motion of the roller about the axle (or if the axle could moving in a swinging manner relative to the roller), the roller would wobble, and the rotatable member 12 would not rotate only with difficulty. Further, such wobble would adversely affect the ability to adjust the force exerted by the casters on the rotatable member to adjust the friction applied by the rollers to the rotatable member. Thus, not only does the Gleeson patent not teach or suggest that a bushing be provided which allows for “a limited and dampened swinging movement around an imaginary axis” as set forth in Claim 2, the Gleeson patent teaches away from this aspect of Claim 2.

Because Gleeson does not teach or suggest a bushing which allows for “a limited and dampened swinging movement around an imaginary axis” as set forth in Claim 2”, the combination of Katz and Gleeson lack this element. Thus, the combination of Katz and Gleeson do not teach all the elements of Claim 2, and therefore Claim 2 is not made obvious by the combination of Katz and Gleeson. See MPEP § 2143 (“the prior art reference (or references when combined) must teach or suggest all the claim limitations).

As noted above, Examiner Brown asserted that the Katz ring could be modified to include the bushing from Gleeson. Initially, Applicant respectfully asserts that neither patent provides any incentive or suggestion to make such a modification to Katz. Hence, Examiner Brown’s proposed modification is not appropriate. MPEP §2143.03.

As best understood by Applicant, Examiner Brown's proposed modification can be carried out in two ways: (1) the bushing from Gleeson can be placed within the opening 6 of the ring 4 of Katz; or (2) the bushing from Gleeson can be placed in the peripheral openings 5 of the ring 4 of Katz. In the first modification, the bushing would provide for a tighter fit between the ring 4 and the post 1. While this might provide for a tighter fit between the ring 4 and the post 1 in the Katz device, this modification fails to meet the requirements of Claim 2. Namely, in this modification, the bushing would not surround a mounting shaft of the play unit. Hence, under this understanding of the Examiner's modification, the combination of Katz and Gleeson do not make obvious the claimed invention.

Under the second modification, the bushing would be received in the threaded peripheral hole 5 of the ring 4, and the pin would then be received in the bushing. Applicant notes that this modification to the Katz play structure would render the play structure inoperable (or at least highly dangerous) for its intended use. As seen in Katz FIGS. 1 and 3 (reproduced above), the plate 14 is below the level of the rings 4. Thus, when the plates are being used, a downward force will be applied to the plate 14, and this force will be transmitted to the pin via the chain 15. If the pin is only frictionally received in the bushing, then it is likely that this downward force will cause the pin to be pulled out of the bushing, resulting in a failure of the play structure (that is, the plate 14 will drop to the ground). This would result in possible injury to those on the plate that dropped). The fact that this modification will result in failure is reinforced by the fact that Gleeson teaches a rotatable fit between the axle and bushing (to allow for rotation of the

roller about the bushing). If the teachings of Gleeson are followed, the pin will be rotatably (and hence loosely) received in the bushing.

Further, Applicant notes that the Gleeson patent does not even teach a friction fit between the axle and the bushing. The Gleeson patent provides that the bushing (and roller) can rotate about the axle. If there were a tight fit (i.e., a friction fit) between the axle and bushing of the Gleeson roller, then the roller would not rotate about the axle, and the rotatable member would not rotate. Thus, if there were a tight fit between the axle and bushing in the Gleeson patent, the Gleeson play structure would be rendered inoperable. In view of the fact that the proposed modification would render either the Katz play unit or the Gleeson play unit inoperable, the combination cannot be said to make obvious the invention of Claim 2. MPEP §2143.01.IV

As noted above, both Katz and Gleeson lack several elements of Claim 2. Most importantly, neither Katz nor Gleeson, whether considered individually or in combination teach or suggest (1) a mounting shaft at at least one end of the play unit; (2) a connector having a bushing which receives a shaft from an end of the play unit; or (3) the fact that the connector allows for dampened swinging movement of the play unit about an axis of the play unit. Applicant notes that at least Examiners Lucchesi and Donnelly stated that Katz and Gleeson lack these elements. Claim 2 is allowable over the combination of Katz and Gleeson.

## **2. Claims 3-5 are patentable over Katz in view of Gleeson**

Claim 3 depends from Claim 2; Claim 4 depends from Claim 3; and Claim 5 depends from Claim 3. Claims 3-5 provide:

3. The playground assembly according to claim 2 wherein the play unit comprises a frame having an elliptic shape and members in the frame which extend parallel to the short axis of the ellipse.

4. The playground assembly according to claim 3 wherein the frame forms a bow.

5. The playground assembly according to claim 3 wherein the members are bowed or curved towards either side of the frame.

Initially, Claim 3-5 depend from Claim 2, and hence incorporates all the elements of Claim 2. Claims 3-5 are thus allowable for the reasons set forth above in conjunction with Claim 2.

In rejecting Claims 3-5, Examiner Brown asserts that “absent criticality, the specific shapes of the playground members utilized would be matters of simple design choice.” Applicant, however, notes that playground designers spend considerable time designing the shape and configuration of play units for playground equipment. This is because the shape and design of the play units, especially units upon which children can climb and crawl, affect the children’s play experience on the play unit. Further, the shape of the play unit will affect how the play unit swings in the playground assembly of Claim 2.

Further, Applicant notes that neither Katz nor Gleeson teach or suggest a play unit as set forth in any of Claims 3-5. Examiner Brown does not dispute this. At least, Examiner Brown has provided no reference which would teach or suggest the configuration set forth in Claims 3-5. None of the other references of record in the application teach or suggest a play unit having a shape as set forth in Claims 3-5. Without any evidence that such a structure would be obvious in view of prior art, Applicant respectfully submits that Examiner Brown has not made a *prima facie* case of obviousness against Claims 3-5.

Finally, Applicant notes that Claim 3 is narrower than Claim 2 when Claim 2 was allowed by Examiners Lucchesi, Yu and Donnelly. Specifically, Examiner Lucchesi stated, “the prior art of record fails to teach or make obvious the base limitations and the specific structure of the play units used.” (See Office Action dated May 20, 2004). Examiner Donnelly stated, “The prior art of record fails to teach the device comprising a play unit in the form of a closed loop with a plurality of members inside the frame formed by the loop” (See the Notice of Allowability). Thus, Applicant respectfully asserts that if Claim 2, as set forth in the Amendment D filed December 2, 2004 was allowable, then Claim 3 in its current form should also be allowable.

Hence, Claims 3-5 are allowable independently of Claim 2. Further, Claims 4 and 5 (both of which depend directly from Claim 3) are allowable independently of each other.

### **3. Claim 6 is patentable over Katz in view of Gleeson**

Claim 6 depends directly from Claim 2 and provides:

6. The playground assembly according to claim 2 wherein the connector includes an outer shell; said bushing being contained within the shell.

Initially, Applicant notes that Claim 6 depends from Claim 2 and is thus allowable for the reasons set forth above in conjunction with Claim 2.

In rejecting Claim 6, Examiner Brown asserted that “as best understood, the modified Katz device teaches the connector comprising an outer shell in which post is engaged with the bushing contained within the shell.”

A “shell” is defined as:

“**4** : something that resembles a shell: as **a** : a framework or exterior structure; *especially* : a building with an unfinished interior **b** (1) : an external case or outside covering <the *shell* of a ship>” (Merriam-Webster On-Line Dictionary)

Applicant's use of the term "shell" comports with this definition. However, it cannot be determined if the ring 4 of Katz comprises a "shell". Katz does not disclose whether the ring 4 is hollow or solid. Katz, however, does disclose that the ring hole 6 is "corresponds to the diameter of the column". Further, Katz does not teach or suggest any groove, channel, or area which can receive a bushing. Hence, Applicant respectfully asserts that Katz does not teach or suggest that the ring 4 is a "shell". Hence, Katz does not disclose a shell which can receive a bushing, as set forth in Claim 6. Thus, the Katz patent lacks the two elements set forth in Claim 6.

As discussed above in conjunction with Claim 2, if Katz were modified to include a bushing, the modification would not meet the limitations of Claim 2 (and hence the limitations of Claim 6) or the modification would render the Katz play structure dangerous, and hence, inoperable.

For at least this reasons, Claim 6 is allowable over Katz and Gleeson independently of Claim 2.

**4. Claim 7 is patentable over Katz in view of Gleeson**

Claim 7 depends from Claim 6 and provides:

7. The playground assembly according to claim 6 wherein the connector includes an inner tube; the inner tube being received within the bushing; the inner tube receiving the mounting shaft of the play unit.

Claim 7 depends from Claim 2 via Claim 6 and thus incorporates the elements of both Claims 2 and 6. Claim 7 is thus allowable for the reasons discussed above in conjunction with both Claims 2 and 6.

As with Claim 6, in rejection Claim 7, Examiner Brown asserted that "as best understood, the modified Katz device teaches the connector comprising an outer shell

in which post is engaged with the bushing contained within the shell.” As can be seen from Examiner Brown’s rejection of Claim 7, Examiner Brown does not explain how either Katz or Gleeson teach or suggest the use of an inner tube (such as the tube 25), as is required by the MPEP. See MPEP 706.02(j) which provides that “the initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done;” and that “It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply.” In his rejection of Claim 7, Examiner Brown did not explain how the references can be combined to produce a playground assembly having a connector as set forth in Claim 7. Hence, for at least this reason, Examiner Brown has not made a *prima facie* rejection of Claim 7, and the rejection must be withdrawn.

The structure of the connector set forth in Claim 7 is shown in FIG. 9 of the application (reproduced below). As seen, the connector includes an outer shell 24, a bushing (comprised of elements 20-23<sup>3</sup>) received within the outer shell, and an inner tube 25 received within the bushing. The play unit shaft 26 is then received in the inner

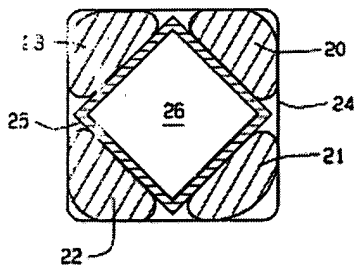


FIG. 9

tube 25. Applicant notes that the Katz patent does not teach or suggest the use of a bushing. While the Gleeson patent discusses the use of a bushing in conjunction with a roller, Gleeson does not teach or suggest that the roller (which receives the bushing) include an inner tube inside of the bushing. Simply stated, neither Katz nor Gleeson, whether considered individually or in combination, teach

or suggest a connector for playground equipment which comprises an outer shell, a



bushing received in the outer shell, and an inner tube received within the bushing, and wherein a shaft of a play unit is then received in this inner tube.

Lastly, in the May 20, 2004 Office Action, Examiner Lucchesi stated that the prior art does not teach that the “connector further [comprises] an inner tube received within the bushing, with the inner tube receiving the mounting shaft.” When Examiner Lucchesi made this statement, Katz and Gleeson were already of record in the application. In fact, Examiner Lucchesi had made a prior rejection based on Katz and Gleeson and had withdrawn the rejection. (See Office Actions dated November 29, 2002 and May 28, 2003).

For at least these reasons, Claim 7 is allowable independently of both Claim 6 and Claim 2.

**5. Claim 8 is patentable over Katz in view of Gleeson**

Claim 8 depends from Claim 6 and provides:

8. The playground assembly according to claim 6 wherein the bushing comprises discrete bushing elements spaced about said shell.

Claim 8 depends from Claim 2 via Claim 6, and hence incorporates the elements of Claims 2 and 6. Hence, Claim 8 is allowable for the reasons set forth above in conjunction with Claims 2 and 6,

In rejecting claim 8, Examiner Brown stated “the use of discrete bushing elements as opposed to a single element is considered a matter of elementary design choice as a single element would also allow for dampened movement”. Applicant respectfully disagrees with Examiner Brown’s assertion.

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<sup>3</sup> Although FIG. 9 shows the bushing to be comprised of four discrete sections, Claim 7 does not require that the bushing be composed of discrete parts. This is set forth in Claim 8, which is discussed below.

In a proper obviousness determination, "whether the changes from the prior art are 'minor' . . . the changes must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's . . . device." This includes what could be characterized as simple changes. *In re Chu*, 66 F.3d 292, 298; 36 U.S.P.Q.2d 1089 (Fed. Cir. 1995), citing *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. (BNA) 1125, 1127 (Fed. Cir. 1984) (Although a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down.).

Initially, the use of a bushing made of discrete parts is not merely a design choice. The use of a bushing made of discrete parts is substantially different from, for example, providing that a tube is square, round, or some other shape, or that the base of a structure is round, square, or rectangular. While it might be possible for a one-piece bushing (depending on the construction of the bushing) to provide for the dampened swinging movement as set forth in Claim 2, the use of a bushing made of discrete elements may affect the manner of the swinging movement differently than would a one-piece bushing. This difference in the swinging motion of the play unit will then affect the play experience a child has with the play equipment.

Further, merely dividing the bushing from Gleeson into discrete parts, as it would appear the Examiner would have Applicant do, still would not produce Applicant's device. Specifically, it would not produce a connector assembly comprising a multi-part bushing surrounding a shaft extending from a play unit, whereby, the connection of the play unit shaft with the connector allows for "with a limited and dampened swinging

movement around an imaginary axis between the opposite ends of the play unit.” *In re Chu, Id.*

Hence, the use of a one-piece bushing or a mutli-piece bushing is not merely a design choice, as Examiner Brown asserts. Further, Examiner Brown has provided no support for his assertion that the multi-part bushing is merely a design choice. Nor has Examiner Brown provided any art which would show that the use of a multi-part bushing is not a patentable innovation in playground equipment. Lastly, Applicant notes that if the Examiner is permitted to assert that a claim element “is merely a design choice” then Examiners will have *carte blanche* to reject claims without providing any references which teach or show the asserted element.

In view of the fact that Examiner Brown has provided no support for this statement, and that that Examiner Brown has provided no references which show a multi-piece bushing received within a shell and which receives an inner tube, as required by Claim 8, Applicant respectfully asserts that the Examiner Brown has failed to make a *prima facie* showing that Claim 8 is obvious.

For at least these additional reasons, Claim 8 is allowable independently of both Claims 6 and 2.

**6. Claim 12 is patentable over Katz in view of Gleeson**

Claim 12 depends from Claim 6 and provides:

12. The playground assembly of claim 6 wherein the connector is mounted within the post.

Claim 12 depends from Claim 2 via Claim 6 and hence incorporates the subject matter of Claims 2 and 6. Claim 12 is therefore allowable for the reasons set forth above in conjunction with Claims 2 and 6.

The present application, at Page 4, Lines 12-14 states: “[the] mounting device or bushing comprises an outer shell 24 which is fixedly mounted to the post, either on its outside or inside the post which then includes some kind of access opening.” Thus, the application provides that the outer shell 24 of the connector can be mounted outside the post or inside the post. In the case where the outer shell 24 is mounted inside the post, the post includes an access opening so that the play unit mounting shaft can be received within the connector. Of the two positions for the outer shell 24, Claim 12 sets forth the latter, i.e., where the outer shell is positioned within the post.

In rejecting Claim 12, the Examiner Brown stated, “Katz teaches the connector mounted within the post.” Contrary to Examiner Brown’s assertion, Katz only shows

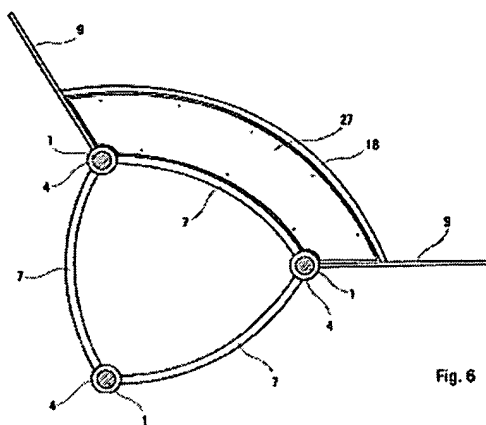


Fig. 6

and describes that the ring 4 is *outside* the post. All the figures of the Katz reference show the ring 4 *surrounding* the post 1. This is clearly shown in FIG. 6 of Katz, which is reproduced at the left. None of the figures show that the ring 4 is positioned *within* the post, as is set forth in Claim 12. Further, Katz

provides that the ring 4 has a “through-going hole 6 which corresponds to the diameter of the column and which can be about 10 cm.” (Katz, Col. 3, lines 1-2). Clearly, if the “through-going hole 6” (which, is the center hole of the ring as seen in Katz, FIG. 8), the ring 4 cannot be received *within* the post, as required by Claim 12. Rather, the post can only pass through the ring. Katz does not teach or suggest that the ring 4 can be received in the post or column 1. Hence, by teaching only that the ring surrounds the

post (i.e., is mounted to the outside of the post), Katz teaches away from the invention of Claim 12.

In the rejection of Claim 12, Examiner Brown asserts that "Katz teaches the connector mounted within the post." Examiner Brown does not state where in the Katz patent that such a construction is taught. As set forth above, it appears that Katz only teaches mounting the ring 4 to the outside of the post.

In view of the fact that Katz does not teach or suggest that the ring 4 can be received in the post 1, and, in fact, teaches away from the invention of Claim 12, Claim 12 is allowable over Katz and Gleeson, independently of Claims 6 and 2. Further, in view of the fact that Examiner Brown neglected to indicate where Katz teaches that the ring 4 can be mounted within the post 1, Applicant respectfully submits that Examiner Brown failed to make a *prima facie* case that Claim 12 is obvious over Katz and Gleeson.

**7. Claim 13 is patentable over Katz in view of Gleeson**

Claim 13 depends from Claim 6 and provides:

13. The playground assembly of claim 6 wherein the connector is mounted to an outer surface of the post.

Claim 13 depends from Claim 2 via Claim 6 and hence incorporates the elements of Claims 2 and 6. Claim 13 is thus allowable for the same reasons as set forth above in conjunction with Claims 2 and 6.

**8. Claim 14 is patentable over Katz in view of Gleeson**

Claim 14 is an independent claim and provides:

14. Play/exercise equipment for use on a playground or in an exercise facility; the equipment comprising:

at least one play unit adapted to be climbed upon; the play unit comprising a pair of opposed side members, a plurality of cross-members extending between the side members, and a mounting shaft extend from at least one end of the play unit;

at least one ground engaging post to which the at least one play unit is mounted; and

a connector for mounting the at least one play unit to the post; the connector comprising a rubber bushing which surrounds the play unit mounting shaft; the connector enabling the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit.

Examiner Brown does not make explicit statements as to why Claim 14 is rejected over Katz in view of Gleeson. Rather, in rejecting Claim 14, Examiner Brown refers back to his rejection of Claims 1-13. Applicant notes that independent Claim 14 is slightly different in scope from independent Claim 2. However, it would appear that Examiner Brown refers back to the rejection of Claim 2 in rejecting Claim 14.

Claim 14, provides that the play unit comprises (1) a pair of opposed side members; (2) a plurality of cross-members extending between the side members; and (3) a mounting shaft [extending] from at least one end of the play unit. Claim 14 further provides for a connector for mounting the play unit to a ground engaging post. As set forth in Claim 14, the connector comprises (1) a rubber bushing which surrounds the play unit mounting shaft; and (2) that the connector enables the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit.

Initially, Katz does not disclose a play unit having a mounting shaft extending from at least one end of the play unit. In the rejection of Claim 2, Examiner Brown asserted that the plates 14 corresponded to the play unit of the claim. However, as

discussed above in conjunction with Claim 2, the plates 14 do not have a mounting shaft at an end thereof. Rather, they have chains connected to the corners of the plates, and these chains extend between the plates 14 and pins on the rings 4 to mount

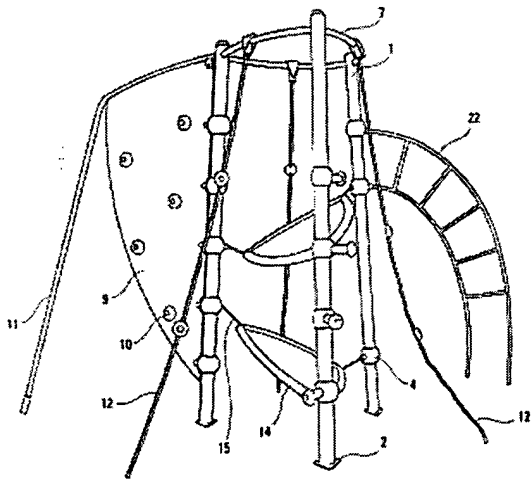


Fig. 3

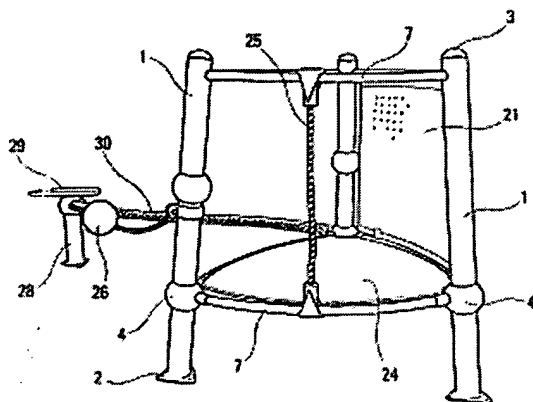


Fig. 4

the plates to the posts 1. Contrary to Examiner Brown's assertion, the pins are not a mounting shaft at "at least one end of the play unit" as set forth in Claim 14. Katz does show a ladder 22 in FIG. 3 (reproduced at left). While this ladder may be asserted to have side members with cross members extending therebetween, the ladder does not have a mounting shaft at its end. As seen in FIG. 3, and as seen more clearly in FIG. 4 (reproduced at left) with a tube 7, the rings 4 appear to have tubes extending therefrom. The ends of the ladder side members, like the ends of the tube 7 (FIG. 4), are received in the

tubes extending from the ring 4. Thus, Katz does not teach or suggest a play unit have a "mounting shaft extending from at least one end of the play unit", as required by Claim 14.

Additionally, as discussed above in conjunction with Claim 2, Katz does not teach or suggest the use of a bushing in a connector which receives a mounting shaft of the play unit, nor does Katz teach or suggest that the connector receive a mounting shaft of

the play unit such that the play unit can “move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit” as set forth in Claim 14. Although Examiner Brown, in rejecting Claim 2, asserted that the pin extending from the ring 4 corresponds to the mounting shaft set forth in the claim, it is not the connection of the pin to the ring 4 which allows for the plates 14 to move.

Rather, it is the flexible chains 15 which suspend the plates 14 from the rings 4 which allow for movement of the plate 14. Further, Katz does not teach or suggest that the ladder 22 can move relative to the rings 14. In fact, because two rings 4 are used mount the ladder 22 to the post 1 (as seen in Katz FIG. 3 above), Applicant respectfully asserts that the ladder 22 is fixed in position relative to the post 1, and cannot move at all relative to the post.

Although Gleeson discloses the use of a bushing, as discussed above, to secure an axle in the roller, connection of the axle to the roller is a frictional fit. Hence, the axle 134 cannot “move with a limited and dampened swinging movement around an imaginary axis” as set forth in Claim 14. Examiner Brown asserted that the Katz can be modified to utilise the Gleeson bushing. As discussed above in conjunction with Claim 2, this proposed modification will lead to an assembly in which the bushing is positioned between the ring and the post (in which case, the bushing would not surround the play unit shaft as required by Claim 14); or an assembly in which the bushing is received in the ring opening 5, and the pins (or ends of the ladder) are received in the bushing (in which case the modified structure becomes inoperable for its intended purpose).

Because neither Katz nor Gleeson teach or suggest (1) a play unit having a mounting shaft at at least one end of the play unit; (2) a connector with a bushing which



surrounds the mounting shaft; or (3) that the connector allows "limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit;" and, because the modifications proposed by Examiner Brown either teach away from the claimed invention or render the Katz and Gleeson play structures inoperable for their intended purposes, Claim 14 is allowable over Katz and Gleeson, whether considered individually or in combination.

**9. Claims 15-18 are patentable over Katz in view of Gleeson**

Claims 15-18 all depend directly from Claim 14. Claims 15-18 provide:

15. The equipment of Claim 14 wherein the play unit comprises a bridge.

16. The equipment of Claim 14 wherein the play unit comprises a ladder.

17. The equipment of Claim 14 wherein the side members of the frame are curved.

18. The equipment of Claim 14 wherein the frame cross-members are curved in a plane offset from a plane of the frame side members

Each of Claims 15-18 depends directly from Claim 14, and thus each of these claims includes the elements of Claim 14. Hence, Claims 15-18 are all allowable over Katz and Gleeson for the reasons set forth in conjunction with Claim 14.

**10. Claim 19 is patentable over Katz in view of Gleeson**

Claim 19 depends from Claim 14 and provides:

19. The equipment of claim 14 wherein the connector includes an outer shell; said bushing being contained within the shell.

Claim 19 depends from Claim 14 and thereby includes the elements of Claim 14.

Claim 19 is allowable for the same reasons set forth above in conjunction with Claim 14.

In rejecting Claim 19, Examiner Brown made no specific findings. Rather, Examiner Brown referred to his rejection of Claims 1-12. While different in scope (due to the differences between Claims 2 and 14), Claim 19, like Claim 6 provides that the connector includes an outer shell and that the bushing is received in the outer shell. Claim 19 is thus deemed to be allowable over Katz and Gleeson for the same reasons as set forth in conjunction with Claim 6. For at these same reasons, Claim 19 is allowable independently of Claim 14.

**11. Claim 20 is patentable over Katz in view of Gleeson**

Claim 20 depends from Claim 19 and provides:

20. The equipment of claim 19 wherein the connector includes an inner tube; the inner tube being received within the bushing; the inner tube receiving the mounting shaft of the play unit.

Claim 20 depends from independent Claim 14 via Claim 19 and is allowable for the same reasons set forth in conjunction with Claims 14 and 19.

In rejecting Claim 20, Examiner Brown made no specific findings. Rather, Examiner Brown referred to his rejection of Claims 1-12. While different in scope (due to the differences between Claims 2 and 14), Claim 20, like Claim 7 provides that the connector includes an inner tube; that the inner tube is received within the bushing; and that the inner tube receives the mounting shaft of the play unit. Claim 20 is thus deemed to be allowable over Katz and Gleeson for the same reasons as set forth in conjunction with Claim 7. For at these same reasons, Claim 20 is allowable independently of Claims 19 and 14.

**12. Claim 21 is patentable over Katz in view of Gleeson**

Claim 21 depends from Claim 19 and provides:

21. The equipment of claim 19 wherein the bushing comprises discrete bushing elements spaced about said shell.

Claim 21 depends from independent Claim 14 via Claim 19. Claim 21 thus incorporates the elements of Claims 19 and 14. Hence, Claim 21 is allowable for the same reasons set forth above in conjunction with Claims 19 and 14.

In rejecting Claim 21, Examiner Brown made no specific findings. Rather, Examiner Brown referred to his rejection of Claims 1-12. While different in scope (due to the differences between Claims 2 and 14), Claim 21, like Claim 8 provides that the bushing comprises discrete bushing elements spaced about the shell. Claim 21 is thus deemed to be allowable over Katz and Gleeson for the same reasons as set forth in conjunction with Claim 8. For at these same reasons, Claim 21 is allowable independently of Claims 19 and 14.

**13. Examiner Brown's Remarks**

In his response to Arguments on Page 3 of Office Action dated January 11, 2006, Examiner Brown stated:

Applicant's arguments with respect to claims 2-8 and 12-21 have been considered but are moot in view of the new ground(s) of rejection. Applicant's claims remain broad. Applicant's device amounts to a post connected to an opening in an upright post. The use of bushing members to secure such a connection is old and well known, as is the use of rubber bushings. Use of such bushings inherently allows a degree of movement.

Examiner Brown's statement that "Applicant's device amounts to a post connected to an opening in an upright post" is clearly an incorrect statement of the claims and totally ignores the several elements that are set forth in the claims.

Independent Claims 1 and 14 both set forth several requirements for the play unit and the connector. Namely, Claims 1 and 14 both provide that the play unit includes a shaft at an end of the play unit, that the connector which mounts the play unit to the post includes a bushing which surrounds the shaft, and that the connector enables “a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit”. Claim 14 further provides that the play unit also comprises a pair of opposed side members and a plurality of cross-members extending between the side members. Additionally, Claims 3-5 (which depend from Claim 2) and Claims 15-18 (which depend from Claim 14) provide additional elements for the play unit; and Claims 6-8 (which depend from Claim 2) and Claims 19-21 (which depend from Claim 14) both add additional elements to the connector. Applicant is clearly not merely claiming “a post connected to an opening in an upright post” as suggested by Examiner Brown. Examiner Brown’s statement is clearly a misstatement of Applicant’s claims. At best, this misleading statement is simply wrong and inaccurate. In order to correct the record, Applicant requests that Examiner Brown issue a clarification as to the fact that the complained of statement is not accurate.

Additionally, Applicant questions Examiner Brown’s remark that the rejection set forth in the January 11, 2006 office action (and which is appealed herein) is a “new” rejection. Applicant notes Examiner Lucchesi rejected the originally filed claims over the Katz and Gleeson patents in the very first office action. Applicant further notes that in the second office action, the rejections based on Katz and Gleeson were withdrawn. Hence, Applicant views the rejection set forth in the January 11, 2006 office action as a reassertion of the rejection originally entered in the first office action.

#### 14. Conclusion

Throughout the long history of the examination of this application, no reference or combination of references have been cited which show (1) a play structure comprising a play unit having a mounting shaft at at least one end of the play unit; (2) a connector used to mount the play structure to a post, wherein the connector contains a bushing which surrounds the mounting shaft of the play unit; or (3) a connector which allows for the play unit to “move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit” as set forth in Claims 2 and 14.

Examiner Donnelly has failed to make a *prima facie* rejection of the claims pending in this application. Claims 2-8 and 12-21 are all allowable for the reasons set forth above. Reversal of the rejection of Claims 2-8 and 12-21 is thus requested.

**VIII. CLAIMS APPENDIX (37CFR 41.37(c)(1)(viii))**

1. Canceled
2. A playground assembly comprising at least one play unit adapted to be climbed upon, at least one ground engaging post to which the at least one play unit is mounted, and a connector for mounting the at least one play unit to the post; the at least one play unit including a mounting shaft at at least one end of the play unit; the connector comprising a rubber bushing which surrounds the play unit mounting shaft; the connector enabling the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit.
3. The playground assembly according to claim 2 wherein the play unit comprises a frame having an elliptic shape and members in the frame which extend parallel to the short axis of the ellipse.
4. The playground assembly according to claim 3 wherein the frame forms a bow.
5. The playground assembly according to claim 3 wherein the members are bowed or curved towards either side of the frame.
6. The playground assembly according to claim 2 wherein the connector includes an outer shell; said bushing being contained within the shell.
7. The playground assembly according to claim 6 wherein the connector includes an inner tube; the inner tube being received within the bushing; the inner tube receiving the mounting shaft of the play unit.
8. The playground assembly according to claim 6 wherein the bushing comprises discrete bushing elements spaced about said shell.

9. Cancelled
10. Cancelled
11. Cancelled
12. The playground assembly of claim 6 wherein the connector is mounted within the post.
13. The playground assembly of claim 6 wherein the connector is mounted to an outer surface of the post.
14. Play/exercise equipment for use on a playground or in an exercise facility; the equipment comprising:
  - at least one play unit adapted to be climbed upon; the play unit comprising a pair of opposed side members, a plurality of cross-members extending between the side members, and a mounting shaft extend from at least one end of the play unit;
  - at least one ground engaging post to which the at least one play unit is mounted;
  - and
  - a connector for mounting the at least one play unit to the post; the connector comprising a rubber bushing which surrounds the play unit mounting shaft; the connector enabling the play unit to move with a limited and dampened swinging movement around an imaginary axis between the opposite ends of the play unit.
15. The equipment of Claim 14 wherein the play unit comprises a bridge.
16. The equipment of Claim 14 wherein the play unit comprises a ladder.
17. The equipment of Claim 14 wherein the side members of the frame are curved.

18. The equipment of Claim 14 wherein the frame cross-members are curved in a plane offset from a plane of the frame side members

19. The equipment of claim 14 wherein the connector includes an outer shell; said bushing being contained within the shell.

20. The equipment of claim 19 wherein the connector includes an inner tube; the inner tube being received within the bushing; the inner tube receiving the mounting shaft of the play unit.

21. The equipment of claim 19 wherein the bushing comprises discrete bushing elements spaced about said shell.

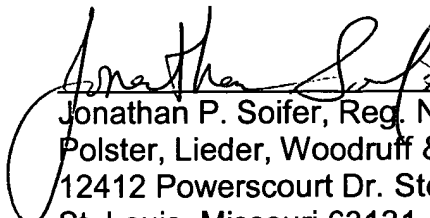
IX. EVIDENCE APPENDIX.

A copy of *In re Chu*, cited above, as attached for the Board's convenience.

X. RELATED PROCEEDINGS APPENDIX.

Corresponding European and Norwegian applications were filed which claim priority to the same Swedish application. The European application was published on January 15, 2003 under publication number EP1275418A1 and the Norwegian application was published on June 27, 2002 under publication number NO20023133A0. The Swedish Priority application appears to have been granted on March 9, 2004 and was assigned patent number SE0522821C2.

Respectfully submitted,

  
Jonathan P. Soifer, Reg. No. 34,932  
Polster, Lieder, Woodruff & Lucchesi, LC  
12412 Powerscourt Dr. Ste. 200  
St. Louis, Missouri 63131  
Tel: (314) 238-2400  
Fax: (314) 238-2401



FOCUS - 1 of 23 DOCUMENTS

IN RE PAUL CHU, WILLIAM DOWNS, JOHN B. DOYLE AND PETER V.  
SMITH

95-1038

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

66 F.3d 292; 1995 U.S. App. LEXIS 25934; 36 U.S.P.Q.2D (BNA) 1089

September 14, 1995, Decided

**PRIOR HISTORY:** [\*\*1] Appeal from a decision of the Board of Patent Appeals and Interferences. (Serial No. 07/593,546).

**DISPOSITION:** REVERSED

**CASE SUMMARY:**

**PROCEDURAL POSTURE:** Plaintiffs appealed a decision of the Board of Patent Appeals and Interferences rejecting their patent claims.

**OVERVIEW:** Plaintiffs applied for patents for their invention, and the patent claims were rejected. The Board of Patent Appeals and Interferences (the Board) affirmed the rejection. The court reversed, holding that the subject matter of the patent claims would not have been obvious. Further the court held that the Board was not free to disregard the evidence and arguments presented by plaintiffs in response to the obviousness rejection. Additionally, the Board erred in apparently requiring plaintiffs' evidence and arguments responsive to the obviousness rejection to be within his specification in order to be considered.

**OUTCOME:** The court reversed, holding that the subject matter of the patent claims would not have been obvious and that the Board of Patent Appeals and Interferences erred in disregarding the evidence and arguments presented by plaintiffs in response to the obviousness rejection.

**CORE TERMS:** bag, filter, patent, catalyst, retainer, flue, fabric, filing date, baghouse, duct, obviousness, skill, invention, placement, inventor, particulate, apparatus, boiler, inside, inventive, entity, teaches, sorbent, specification, pulse-jet, cleaning, disclosure, teaching, totality, continuation-in-part

LexisNexis(R) Headnotes

*Civil Procedure > Appeals > Standards of Review > De Novo Review*

*Governments > Legislation > Interpretation*

[HN1] Statutory interpretation is a question of law which the court reviews de novo.

*Patent Law > Jurisdiction & Review > Standards of Review > Clearly Erroneous Review*

*Patent Law > U.S. Patent & Trademark Office Proceedings > Appeals*

[HN2] In appeals from the United States Patent and Trade Office rejections, the Board of Patent Appeals and Interferences findings are reviewed under the clearly erroneous standard.

*Patent Law > Claims & Specifications > Description Requirement > General Overview*

*Patent Law > Claims & Specifications > Enablement Requirement > General Overview*

*Patent Law > U.S. Patent & Trademark Office Proceedings > Continuation Applications > Priority*

[HN3] It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C.S. § 112. 35 U.S.C.S. § 120.

*Civil Procedure > Appeals > Standards of Review > De Novo Review*

*Patent Law > Jurisdiction & Review > Standards of Review > General Overview*

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**Patent Law > Nonobviousness > Elements & Tests > General Overview**

[HN4] Obviousness under 35 U.S.C.S. § 103 is a question of law that the court reviews de novo. What a reference teaches is a question of fact reviewed under the clearly erroneous standard.

**Patent Law > Nonobviousness > Elements & Tests > Claimed Invention as a Whole****Patent Law > Nonobviousness > Elements & Tests > Ordinary Skill Standard****Patent Law > Nonobviousness > Elements & Tests > Prior Art**

[HN5] In a proper obviousness determination, whether the changes from the prior art are minor, the changes must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's device. This includes what could be characterized as simple changes.

**Patent Law > Nonobviousness > Elements & Tests > General Overview**

[HN6] Where the prior art gives reason or motivation to make the claimed invention, the burden (and opportunity) then falls on an applicant to rebut that prima facie case. Such rebuttal or argument can consist of any other argument or presentation of evidence that is pertinent. After evidence or argument is submitted by the applicant in response to an obviousness rejection, patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of the argument.

**COUNSEL:** Daniel S. Kalka, McDermott Incorporated, argued for appellant. Of counsel was Peter C. Michalos, Notaro and Michalos P.C.

Nancy J. Linck, Attorney, Office of the Solicitor, Patent and Trademark Office, argued for appellee. With her on the brief were Albin F. Drost, Deputy Solicitor and Scott A. Chambers, Associate Solicitor. Of counsel was La Vonda R. De Witt.

**JUDGES:** Before RICH, Circuit Judge, SKELTON, Senior Circuit Judge, and NEWMAN, Circuit Judge.

**OPINIONBY: RICH****OPINION: [\*293] RICH, Circuit Judge.**

Paul Chu, William Downs, John B. Doyle, and Peter V. Smith (collectively Chu) appeal [\*294] the August 9,

1994 decision of the Board of Patent Appeals and Interferences (Board) of the United States Patent and Trademark Office (PTO) affirming the Examiner's final rejection of claims 1, 2, 12, and 14 of patent application Serial No. 07/593,546 (the '546 application). n1 We reverse.

n1 The rejections of the remaining pending claims were not appealed.

[\*\*2]

**I. Background****A. The Invention**

Chu's invention relates to an apparatus used to control emissions, such as sulfur oxides (SOx), oxides of nitrogen (NOx), and particulates, such as fly ash, from fossil fuel boilers. Fig. 1 of the '546 application is reproduced below.

The apparatus includes a fossil fuel fired boiler 10 containing an economizer 12 which receives combustion flue gas therefrom. The flue gas is input via exhaust duct 14 to a fabric filter house or baghouse 16 where it is cleaned, as described in greater detail below. Ammoniacal compounds are also input to the baghouse 16 through duct 14 at point 18. Sorbent is input to the boiler 10 either upstream of the economizer 12 at point 20 or downstream of the economizer 12 at point 22 depending on the particular sorbent chosen. After exiting baghouse 16, the clean flue gas proceeds along duct 36 to heat transfer device 38 which lowers the exit gas temperature. The flue gas then exits along duct 40 to the stack 42 where it passes to the environment.

Fig. 2 of the '546 application is a partial cross section of baghouse 16.

[\*295] The baghouse 16 contains suitable fabric filters, such as filter bags 26. A selective catalytic [\*3] reduction (SCR) catalyst 24, not shown in Fig. 2, is incorporated into the baghouse 16. The SCR catalyst 24 is located in the exhaust plenum of the baghouse 16, or, preferably, inside the filter bags 26.

Figs. 6-9 show alternative embodiments of apparatus for placement of the SCR catalyst 24 within each filter bag 26 of the baghouse 16. Fig. 6 is exemplary and is reproduced below.

Fig. 6 shows a catalyst bed 44, or bag retainer, formed of concentric cylinders 46 and 48, each constructed of a porous material such as a perforated metal plate. The filter bag 26 encloses the bag retainer. The SCR catalyst 24 is placed in the space between cylinders 46 and 48. Flue gas flows up through the cylinders 46 and 48, as shown. The particulates and sorbent collect on

the filter bags 26 to form filter cakes. To clean the filter bags 26 the '546 application discloses a pulse-jet cleaning system wherein a pulse of high-pressure air is blown into the bag retainer. The surface of each filter bag 26 is thereby cleaned and the filter cakes are discharged into a hopper 56.

Claim 1, the only independent claim at issue, recites:

1. An apparatus for controlling emissions of a fossil fuel fired [\*4] boiler which produces flue gases containing SOx, NOx, and particulates, comprising:

a flue gas duct constructed so as to carry flue gases from a boiler to a stack for discharge;

a high-temperature pulse jet fabric filter house connected along the flue gas duct between the boiler and the stack constructed so as to remove particulate from the flue gas passing along the flue gas duct, said fabric filter house having a plurality of fabric filter bags contained therein with each of said fabric filter bags having a bag retainer situated therein;

a selective catalytic reduction catalyst positioned inside the bag retainer of each of said fabric filter bags in said filter house;

means for recovering heat connected along the flue gas duct downstream of said fabric filter house, said heat recovering means constructed so as to be heated by the flue gases in the flue gas duct;

means for injecting an ammoniacal compound into the flue gas duct upstream of said filter house; and

means for injecting sorbent into the flue gas duct upstream of the filter house whereby the sorbent reacts with SOx, the particulates are removed in said fabric filter [\*5] house, thus protecting the NOx reduction catalyst from fly ash erosion and SOx poisoning.

## B. The Prosecution

The Examiner rejected claims 1, 2, 12, and 14 under 35 U.S.C. § 103 (1988) as being unpatentable over U.S. Patent No. 4,871,522 issued to Doyle in view of U.S. Patent No. 4,874,586 issued to Szymanski et al. (Szymanski). The Examiner stated that Doyle discloses all elements of claim 1 but "fails to disclose a baghouse filters [sic] having a catalyst located within the filter, and is silent on specific baghouse filter design." The Examiner asserted, however, that Szymanski teaches "a baghouse filter similar to those of the instant claims" and that "one of ordinary skill in the art would have modified the [Doyle] apparatus to incorporate the baghouse filters of [Szymanski] to facilitate simultaneous removal of sulfur oxides and particulates on the filter and nitrogen oxides [\*296] through the catalytic bed, disposed within the filters."

In response to the rejection, Chu first argued that the subject application "claims the benefit of the filing date as a continuation-in-part of [the Doyle patent]" such that the use of the Doyle patent "as a reference should be [\*6] limited only to the new matter claimed in the continuation-in-part application."

As to the merits of the rejection, Chu contended that Doyle teaches placing the SCR catalyst in a heat exchanger downstream from the fabric filter house. Chu also argued that Szymanski "adds nothing to the foregoing reference since it merely teaches . . . incorporating an SCR catalyst into the filter fabric of a filter bag." Chu maintained that neither Doyle nor Szymanski teaches or suggests positioning the SCR catalyst inside the bag retainer of the filter bags as claimed. This feature is significant, according to Chu, because the bag retainers provide support and prevent the filter bags from collapsing during pulse-jet cleaning.

## C. The Board's Decision

The Board first addressed whether the Doyle patent is available as prior art against the '546 application. The Board concluded that "Doyle is available as a reference for its entire disclosure under 102(e)/103 as to the current application because it is the uncontroverted work of 'another' in this particular case." The Board reasoned that because the Doyle patent and the Chu application have different, albeit overlapping, inventive entities, [\*7] the Doyle patent is necessarily the work of "another" as defined in 35 U.S.C. § 102(e) (1988) and therefore available as prior art. That Chu claimed the benefit of Doyle's earlier filing date by claiming continuation-in-part (CIP) status under 35 U.S.C. § 120 (1988) was found to be irrelevant, the Board stating that "an attempt to claim CIP status between applications which never

shared the same inventive entity is unavailing as a means to overcome" a rejection under § 103.

As to the merits of the § 103 rejection, the Board agreed with the Examiner that Doyle discloses all the elements of independent claim 1 except an SCR catalyst positioned within a bag retainer. The Board found that Szymanski's relatively stiff meshed inner wall 32 is a bag retainer as that term would be understood by one of ordinary skill in the art. Thus, in Szymanski, the catalyst is located between the bag retainer 32 and the bag 30, whereas claim 1, by contrast, requires the catalyst to be "positioned inside the bag retainer."

The Board concluded that the change between situating the catalyst in between the bag and the bag retainer and within the bag retainer is a matter of "design choice" and affirmed [\*\*8] the rejection of claim 1. As to dependent claims 2, 4, and 14, the Board held that as "appellants have not separately argued such claims with any reasonable degree of specificity apart from claim 1," those claims "will fall with claim 1." The rejection of claims 2, 4, and 14 was accordingly affirmed.

Chu appealed the Board's decision to this court. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) (1988).

## II. Availability of Doyle as a Reference

### A. Standard of Review

[HN1] Statutory interpretation is a question of law which we review de novo. *In re Kathawala*, 9 F.3d 942, 945, 28 U.S.P.Q.2D (BNA) 1785, 1786 (Fed. Cir. 1993). [HN2] In appeals from PTO rejections, the Board's findings are reviewed under the clearly erroneous standard. *In re Caveney*, 761 F.2d 671, 674, 226 U.S.P.Q. (BNA) 1, 3 (Fed. Cir. 1985).

### E. Analysis

The threshold issue in this case is whether the Doyle patent is available as prior art against Chu's claims. Chu maintains that the instant application should be afforded the Doyle patent filing date with respect to "the disclosure of the Doyle application" because the instant application claims to be a CIP of the Doyle patent. According to Chu, affording Chu's [\*\*9] application this filing date would remove the Doyle patent as a reference. However, the Board found, and the PTO argues on appeal, that Chu is not entitled to the benefit of the Doyle patent filing [\*\*297] date because there is not the same inventive entity between the Doyle patent and the Chu application. We conclude that Doyle is a proper prior art reference, though not for the reasons advanced by the Board.

Section 104(b) of the Patent Law Amendments Act of 1984 struck the phrase "by the same inventor" from 35 U.S.C. § 120 and substituted therefor the phrase "which is filed by an inventor or inventors named in the previously filed application." Patent Law Amendments Act of 1984, Pub. L. No. 98-622, sec. 104(b), § 120, 98 Stat. 3383, 3385.

The legislative history of this amendment clearly explains its purpose.

Subsection (b) of section 105 n2 amends section 120 of the patent law to provide that an application can obtain the benefit of the filing date of an earlier application when not all inventors named in the joint application are the same as named in the earlier application. This permits greater latitude in filing "divisional" applications. For example, if the previously filed [\*\*10] application named inventors A and B as the inventors, a later application by either A or B could be filed during the pendency of the previously filed application and claim benefit of the previously filed application.

n2 In the Congressional Record, the pertinent section is § 105(b). See 130 Cong. Rec. 28066 (1984). The same section, however, is listed as § 104(b) in United States Statutes at Large. See 98 Stat. at 3385.

130 Cong. Rec. 28065, 28071 (1984), H.R. 6286, 98th Cong., 2d Sess. (1984), reprinted in 1984 U.S.C.C.A.N. 5827, 5835 (Section-by-Section Analysis: Patent Law Amendments of 1984).

The 1984 amendment to § 120 plainly allows continuation, divisional, and continuation-in-part applications to be filed and afforded the filing date of the parent application even though there is not complete identity of inventorship between the parent and subsequent applications. D. Chisum, Patents § 13.07 (1995). Thus, the Board erred in requiring complete identity of inventorship between [\*\*11] the Doyle patent and the Chu application in order for Chu to have the benefit of the Doyle patent's filing date. There is overlap in the inventive entities of the Doyle patent and the Chu application, which, after the 1984 amendment, is all that is required in terms of inventorship or "inventive entity" to have the

benefit of an earlier filing date. But this does not determine whether Chu is entitled to the Doyle date. There is another requirement.

[HN3] It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112. 35 U.S.C. § 120. *Mendenhall v. Cedarapids Inc.*, 5 F.3d 1557, 1566, 28 U.S.P.Q.2D (BNA) 1081, 1088-89 (Fed. Cir. 1993) ("A patentee cannot obtain the benefit of the filing date of an earlier application where the claims in issue could not have been made in the earlier application."), cert. denied, 128 L. Ed. 2d 192, 114 S. Ct. 1540 (1994); see also *Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1438, 221 U.S.P.Q. (BNA) 97, 106 (Fed. Cir. 1984) (discussing filing dates of CIP applications). [\*\*12]

Thus, Chu is entitled to the benefit of the Doyle patent filing date only if the Doyle patent discloses the subject matter now claimed by Chu. This, however, is admitted by Chu not to be the case. In fact, Chu states that "the invention as now claimed[] was not described in the [Doyle] patent." Specifically, Chu concedes that "nothing in Doyle suggests that SCR catalyst be placed inside the bag filter." Therefore, independent claim 1, which includes this limitation, and dependent claims 2, 4, and 14, are not supported by the Doyle patent disclosure. Accordingly, Chu cannot obtain the benefit of the Doyle patent filing date for these claims and the Doyle patent was properly relied on as prior art.

### III. The Merits of the Rejection

#### A. Standard of Review

[HN4] Obviousness under section 103 is a question of law that we review de novo. *In re Donaldson Co.*, 16 F.3d 1189, 1192, 29 U.S.P.Q.2D (BNA) 1845, 1848 (Fed. Cir. 1994) (in banc). [\*\*298] What a reference teaches is a question of fact reviewed under the clearly erroneous standard. *In re Beattie*, 974 F.2d 1309, 1311, 24 U.S.P.Q.2D (BNA) 1040, 1041 (Fed. Cir. 1992).

#### B. Obviousness

[HN5] In a proper obviousness determination, whether [\*\*13] the changes from the prior art are 'minor', . . . the changes must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's . . . device." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 935, 15 U.S.P.Q.2D (BNA) 1321, 1324 (Fed. Cir.), cert. denied, 498 U.S. 920, 112 L. Ed. 2d 250,

111 S. Ct. 296 (1990). This includes what could be characterized as simple changes, as in *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. (BNA) 1125, 1127 (Fed. Cir. 1984) (Although a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down.).

[HN6] "Where the prior art gives reason or motivation to make the claimed [invention] . . . the burden (and opportunity) then falls on an applicant to rebut that prima facie case. Such rebuttal or argument can consist of . . . any other argument or presentation of evidence that is pertinent." *In re Dillon*, 919 F.2d 688, 692-93, 16 U.S.P.Q.2D (BNA) 1897, 1901 (Fed. Cir. 1990) (in banc), cert. denied, 500 U.S. 904, 114 L. Ed. 2d 77, 111 S. Ct. 1682 (1991). After evidence [\*\*14] or argument is submitted by the applicant in response to an obviousness rejection, "patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of the argument." *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2D (BNA) 1443, 1444 (Fed. Cir. 1992); see *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. (BNA) 785, 787 (Fed. Cir. 1984) ("All evidence on the question of obviousness must be considered, both that supporting and that rebutting the prima facie case.").

#### C. Analysis

During prosecution, Chu proffered multiple reasons why placement of the SCR catalyst within the bag retainer is not merely a matter of "design choice." To support his reasoning, Chu supplied various technical articles discussing fabric filters and the stresses they undergo during pulse-jet cleaning. From this evidence, Chu contended that Szymanski does not "accommodate the frailties of the high temperature fabric" of the filter bag and therefore "one of ordinary skill in the art would not look favorably on the teachings of the Szymanski, et al patent." Accordingly, Chu concluded that one of ordinary skill in the art would not have been led to modify [\*\*15] Szymanski from its teaching of situating the catalyst between two filter bags to placing the catalyst within the bag retainer, as claimed.

The Board concluded, however, that placement of the SCR catalyst in the bag retainer was a matter of "design choice" and that Chu's evidence and arguments to the contrary were unpersuasive because Chu's "specification is virtually silent on the matter of any purported advantage to locating the catalyst within the bag retainer" and "does not state that the claimed location of the catalyst 'inside the bag retainer' solves any particular problem or produces any unexpected result."

Because the Board was required to consider the totality of the record, the Board was not free to disregard the evidence and arguments presented by Chu in response to the obviousness rejection. Additionally, the Board erred in apparently requiring Chu's evidence and arguments responsive to the obviousness rejection to be within his specification in order to be considered. To require Chu to include evidence and arguments in the specification regarding whether placement of the SCR catalyst in the bag retainer was a matter of "design choice" would be to require patent applicants [\*\*16] to divine the rejections the PTO will proffer when patent applications are filed.

Additionally, the cases the Board relied on do not support its position that evidence and arguments must be found in the specification to be considered in an obviousness determination. In each case, the applicant [\*\*299] failed to set forth any reasons why the differences between the claimed invention and the prior art would result in a different function or give unexpected results. *In re Rice*, 52 C.C.P.A. 998, 341 F.2d 309, 144 U.S.P.Q. (BNA) 476 (CCPA 1965) ("Appellants have failed to show that the change [in the claimed invention] as compared to [the reference], result in a difference in function or give unexpected results."); *In re Kuhle*, 526 F.2d 553, 555, 188 U.S.P.Q. (BNA) 7, 9 (CCPA 1975) ("Use of such means of electrical connection in lieu of those used in the references solves no stated problem and would be an obvious matter of design choice within the skill in the art." (emphasis added) (citations omitted)).

*In re Lundberg*, 45 C.C.P.A. 838, 253 F.2d 244, 117 U.S.P.Q. (BNA) 190 (CCPA 1958), relied on by the Board, is also unpersuasive. In that case, the applicant argued that its valve was distinguished from the prior art because it could [\*\*17] be opened in either direction. The court found this argument to be unpersuasive because "that advantage is not disclosed in appellant's application" and "the reversible operation now proposed by appellant would require modifications which are not disclosed in the application." *Lundberg*, 253 F.2d at 247, 117 U.S.P.Q. (BNA) at 192. None of the arguments pre-

sented by Chu would require any change in the construction of the disclosed emission control apparatus.

We have found no cases supporting the position that a patent applicant's evidence and/or arguments traversing a § 103 rejection must be contained within the specification. There is no logical support for such a proposition as well, given that obviousness is determined by the totality of the record including, in some instances most significantly, the evidence and arguments proffered during the give-and-take of ex parte patent prosecution.

From the totality of the record, we hold that placement of the SCR catalyst within the bag retainer would not have been merely a matter of "design choice." First, there is no teaching or suggestion in the prior art that would lead one of ordinary skill in the art to modify the Szymanski structure to [\*\*18] place the SCR catalyst within a bag retainer as opposed to between two filter bags as disclosed in Szymanski. Next, Chu's technical evidence relating to the frailty of fabric filters during pulse-jet cleaning clearly counters the assertion that placement of the catalyst in the baghouse is merely a "design choice." Specifically, Chu's evidence regarding the violent "snapping" action during pulse-jet cleaning, the difficulty in stitching compartments including the capacity to withstand high temperatures, and problems encountered from variable path lengths due to settling of the catalyst particles in each compartment militates against a conclusion that placement of the SCR catalyst is merely a "design choice." See *In re Gal*, 980 F.2d 717, 25 U.S.P.Q.2D (BNA) 1076 (Fed. Cir. 1992) (finding of "obvious design choice" precluded where the claimed structure and the function it performs are different from the prior art).

#### IV. Conclusion

We therefore conclude that the subject matter of claim 1 would not have been obvious in view of Doyle and Szymanski. The rejection of independent claim 1, and necessarily of dependent claims 2, 4, and 14, is accordingly reversed.

**REVERSED [\*\*19]**